SAFETY DATA SHEET

Cookson Electronics ASSEMBLY MATERIALS

Sn99Cu1 3.25mm

1. Identification of the preparation and of the company

Product name : Sn99Cu1 3.25mm

Code : 20714

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Manufacturer :
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Contact person : shosken@cooksonelectronics.com

Material uses : soldering

2 Hazards identification

The product is not classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification : Not classified.

:

Skin contact : Non-irritant to skin.

:

Toxicity data : Not available.

Additional warning phrases : Safety data sheet available for professional user on request.

See section 11 for more detailed information on health effects and symptoms.

3 Composition/information on ingredients

Substance/preparation : Preparation

Ingredient name	CAS number	%	EC number	Classification
Europe				
tin	7440-31-5	80 - 100	231-141-8	Not classified.
copper	7440-50-8	0.5 - 1	231-159-6	Not classified.
See section 16 for the full text of the R-phrases declared above				

Occupational exposure limits, if available, are listed in section 8.

The classifications listed, indecate the potential hazards of the ingredients

4. First-aid measures

First-aid measures

Skin contact : Flush contaminated skin with plenty of water. Cuts should be treated promptly and covered.

Eye contact : Get medical attention if any damage to the eye is caused by the metal.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training.

Notes to physician : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

See section 11 for more detailed information on health effects and symptoms.

5. Fire-fighting measures

Extinguishing media

Suitable : Use an extinguishing agent suitable for the surrounding fire.

Not suitable : None known.

Special exposure hazards : No specific fire or explosion hazard.

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Hazardous combustion products : Decomposition products may include the following materials:
metal oxide/oxides

Special protective equipment for fire-fighters : No special protection is required.

6. Accidental release measures

Personal precautions : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering.

Environmental precautions : No specific hazard.

Large spill : Restack safely. Take care with items that are sharp or heavy. Note: see section 1 for emergency contact information and section 13 for waste disposal.

Small spill : Restack safely. Take care with items that are sharp or heavy.

7. Handling and storage

Handling : Put on appropriate personal protective equipment (see section 8). Workers should wash hands and face before eating, drinking and smoking. Take care with items that are sharp or heavy.

Storage : Store in accordance with local regulations.

Packaging materials

Recommended : Use original container.

8. Exposure controls/personal protection

Exposure limit values

Ingredient name	Occupational exposure limits
Europe	
tin	**ACGIH TLV (United States, 1/2008).** TWA: 2 mg/m³ 8 hour(s).
copper	**ACGIH TLV (United States, 1/2008).** TWA: 0.2 mg/m³ 8 hour(s). Form: Fume **ACGIH TLV (United States, 1/2008). Notes: as Cu** TWA: 1 mg/m³, (as Cu) 8 hour(s).
Sweden	
copper	**AFS (Sweden, 2000).** NGV: 0.2 mg/m³ 8 hour(s). Form: Fume **AFS 2005:17 (Sweden, 6/2007).** TWA: 0.2 mg/m³ 8 hour(s). Form: respirable dust TWA: 1 mg/m³ 8 hour(s). Form: total dust
Denmark	
copper	**Arbejdstilsynet (Denmark, 3/2008). Notes: calculated as Cu** TWA: 0.1 mg/m³, (calculated as Cu) 8 hour(s). Form: fume **Arbejdstilsynet (Denmark, 3/2008).** TWA: 1 mg/m³ 8 hour(s). Form: powder and dust
Norway	
copper	**Arbeidstilsynet (Norway, 11/2007).** TWA: 1 mg/m³ 8 hour(s). Form: dust TWA: 0.1 mg/m³ 8 hour(s). Form: fume

8. Exposure controls/personal protection

France

copper

INRS (France, 12/2007). Notes: indicative exposure limits
STEL: 2 mg/m³, (as Cu) 15 minute(s). Form: dust
TWA: 1 mg/m³, (as Cu) 8 hour(s). Form: dust
TWA: 0.2 mg/m³ 8 hour(s). Form: fume

Netherlands

copper

MinSZW Wettelijke Grenswaarden (Netherlands, 4/2008). Notes: Administrative
MAC-TGG, 8 uur: 0.1 mg/m³ 8 hour(s). Form: inhaleerbare fractie

Germany

copper

MAK-Werte Liste (Germany, 7/2006).
PEAK: 0.2 mg/m³, 4 times per shift, 15 minute(s). Form: Aerosol / measured as the inhalable fraction
TWA: 0.1 mg/m³ 8 hour(s). Form: Aerosol / measured as the inhalable fraction

Finland

tin

Työterveyslaitos (Finland, 2002).
TWA: 2 mg/m³ 8 hour(s).
Työterveyslaitos, Sosiaali- ja terveysministeriö (Finland, 8/2007). Notes: calculated as Sn
TWA: 2 mg/m³, (calculated as Sn) 8 hour(s).

copper

Työterveyslaitos (Finland, 2002).
TWA: 1 mg/m³ 8 hour(s).
Työterveyslaitos, Sosiaali- ja terveysministeriö (Finland, 8/2007). Notes: calculated as Cu
STEL: 0.1 ppm, (calculated as Cu) 15 minute(s). Form: respirable dust
STEL: 0.1 ppm, (calculated as Cu) 15 minute(s). Form: respirable fume

United Kingdom (UK)

tin

EH40-OES (United Kingdom (UK), 2002).
TWA: 2 mg/m³ 8 hour(s).
STEL: 4 mg/m³ 15 minute(s).

copper

EH40/2005 WELs (United Kingdom (UK), 8/2007). Notes: as Cu
STEL: 2 mg/m³, (as Cu) 15 minute(s). Form: Dusts and Mists
TWA: 1 mg/m³, (as Cu) 8 hour(s). Form: Dusts and Mists
TWA: 0.2 mg/m³, (as Cu) 8 hour(s). Form: Fume

Austria

tin

GKV_MAK (Austria, 9/2007).
STEL: 4 mg/m³, 4 times per shift, 15 minute(s). Form: inhalable fraction
TWA: 2 mg/m³ 8 hour(s). Form: inhalable fraction

copper

GKV_MAK (Austria, 9/2007).
STEL: 4 mg/m³, 4 times per shift, 15 minute(s). Form: inhalable fraction
TWA: 1 mg/m³ 8 hour(s). Form: inhalable fraction
STEL: 0.4 mg/m³, 4 times per shift, 15 minute(s). Form: respirable fume
TWA: 0.1 mg/m³ 8 hour(s). Form: respirable fume

Switzerland

copper

SUVA (Switzerland, 1/2007). Notes: not temporary
STEL: 0.2 mg/m³ 15 minute(s). Form: inhalable dust
TWA: 0.1 mg/m³ 8 hour(s). Form: inhalable dust

Belgium

8. Exposure controls/personal protection

tin	**Lijst Grenswaarden / Valeurs Limites (Belgium, 6/2007). Absorbed through skin.** TWA: 2 mg/m³ 8 hour(s).
copper	**Lijst Grenswaarden / Valeurs Limites (Belgium, 6/2007). Notes: as Cu** TWA: 1 mg/m³, (as Cu) 8 hour(s). Form: dust and mist TWA: 0.2 mg/m³, (as Cu) 8 hour(s). Form: fume
Spain	
tin	**INSHT (Spain, 1/2008).** TWA: 2 mg/m³ 8 hour(s).
copper	**INSHT (Spain, 1/2008). Notes: as Cu** TWA: 1 mg/m³, (as Cu) 8 hour(s). Form: dust and mist **INSHT (Spain, 1/2008).** TWA: 0.2 mg/m³ 8 hour(s). Form: fume
Turkey	
tin	**NIOSH REL (United States, 6/2008).** TWA: 2 mg/m³ 10 hour(s).
copper	**NIOSH REL (United States, 6/2008).** TWA: 1 mg/m³ 10 hour(s). Form: Dusts and Mists
Czech Republic	
copper	**178/2001 (Czech Republic, 12/2007).** STEL: 2 mg/m³ 15 minute(s). Form: dust TWA: 1 mg/m³ 8 hour(s). Form: dust STEL: 0.2 mg/m³ 15 minute(s). Form: fume TWA: 0.1 mg/m³ 8 hour(s). Form: fume
Ireland	
copper	**NAOSH (Ireland, 8/2007). Notes: as Cu** OELV-15min: 2 mg/m³, (as Cu) 15 minute(s). Form: dusts and mists OELV-8hr: 1 mg/m³, (as Cu) 8 hour(s). Form: dusts and mists OELV-8hr: 0.2 mg/m³, (as Cu) 8 hour(s). Form: fume
Italy	
tin	**ACGIH TLV (United States, 1/2008).** TWA: 2 mg/m³ 8 hour(s).
copper	**ACGIH TLV (United States, 1/2008).** TWA: 0.2 mg/m³ 8 hour(s). Form: Fume **ACGIH TLV (United States, 1/2008). Notes: as Cu** TWA: 1 mg/m³, (as Cu) 8 hour(s).
Estonia	
copper	**Sotsiaalminister (Estonia, 10/2007).** TWA: 0.2 mg/m³ 8 hour(s). Form: inhalable dust TWA: 1 mg/m³ 8 hour(s). Form: total dust
Lithuania	
copper	**Del Lietuvos Higienos Normos (Lithuania, 10/2007). Notes: as Cu** TWA: 0.2 mg/m³, (as Cu) 8 hour(s). Form: alveolar TWA: 1 mg/m³, (as Cu) 8 hour(s). Form: respirable
Slovakia	
copper	**Nariadenie Vlády Slovenskej republiky (Slovakia, 6/2007).** CEIL: 2 mg/m³ Form: dust TWA: 1 mg/m³ 8 hour(s). Form: dust CEIL: 0.2 mg/m³ Form: smoke TWA: 0.1 mg/m³ 8 hour(s). Form: smoke
Hungary	
copper	**EüM-SzCsM (Hungary, 12/2007).** PEAK: 0.4 mg/m³ 15 minute(s). Form: fume TWA: 0.1 mg/m³ 8 hour(s). Form: fume
Poland	

8. Exposure controls/personal protection

tin	**Ministra Pracy i Polityki Społecznej (Poland, 9/2007). Notes: calculated as Sn** TWA: 2 mg/m³, (calculated as Sn) 8 hour(s). Form: smokes and dusts
copper	**Ministra Pracy i Polityki Społecznej (Poland, 9/2007). Notes: calculated as Cu** STEL: 0.3 mg/m³, (calculated as Cu) 15 minute(s). TWA: 0.1 mg/m³, (calculated as Cu) 8 hour(s).
Slovenia	
copper	**Uradni list Republike Slovenije (Slovenia, 6/2007).** TWA: 1 mg/m³ 8 hour(s). Form: inhalable fraction TWA: 0.1 mg/m³ 8 hour(s). Form: respirable fume
Latvia	
copper	**LV Nat. Standardisation and Meterological Centre (Latvia, 5/2007).** STEL: 1 mg/m³ 15 minute(s). TWA: 0.5 mg/m³ 8 hour(s).
Greece	
tin	**PD 90/1999 (Greece, 8/2007).** TWA: 2 mg/m³ 8 hour(s).
copper	**PD 90/1999 (Greece, 8/2007).** STEL: 2 mg/m³ 15 minute(s). Form: dust TWA: 1 mg/m³ 8 hour(s). Form: dust TWA: 0.2 mg/m³ 8 hour(s). Form: fume
Portugal	
tin	**Instituto Português da Qualidade (Portugal, 3/2007).** TWA: 2 mg/m³ 8 hour(s).
copper	**Instituto Português da Qualidade (Portugal, 3/2007). Notes: expressed as Cu** TWA: 1 mg/m³, (expressed as Cu) 8 hour(s). Form: dust and mist TWA: 0.2 mg/m³, (expressed as Cu) 8 hour(s). Form: fume

Exposure controls

Occupational exposure controls : No special ventilation requirements.

Hygiene measures : Wash thoroughly after handling.

Respiratory protection : Not applicable. Recommended: None assigned.

Hand protection : Use strong, cut-resistant gloves suitable for handling metals. <1 hours (breakthrough time): disposable vinyl

Eye protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. Recommended: safety glasses with side-shields EN 166 1F

Skin protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: overall

9. Physical and chemical properties

General information

Appearance

Physical state : Solid.

Colour : Silvery.

Odour : None.

Important health, safety and environmental information

Melting point : 228 to 250°C (442.4 to 482°F)

Solubility : Insoluble in the following materials: cold water and hot water.

VOC content : 0 % (w/w)

9. Physical and chemical properties

10. Stability and reactivity

Stability : The product is stable.

Conditions to avoid : No specific data.

Materials to avoid : No specific data.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. Toxicological information

Potential acute health effects

Skin contact : No known significant effects or critical hazards.

Acute toxicity

Over-exposure signs/symptoms

Target organs : Contains material which may cause damage to the following organs: kidneys, liver, upper respiratory tract, skin, eye, lens or cornea.

12. Ecological information

Aquatic ecotoxicity

Product/ingredient name	Test	Result	Species	Exposure
copper	-	Acute EC50 38 ug/L Fresh water	Crustaceans - Water flea - Chydorus sphaericus - Juvenile (Fledgling, Hatchling, Weanling) - <48 hours	48 hours
	-	Acute EC50 33.4 ug/L Fresh water	Crustaceans - Water flea - Chydorus ovalis - Juvenile (Fledgling, Hatchling, Weanling) - <48 hours	48 hours
	-	Acute EC50 20.2 ug/L Fresh water	Crustaceans - Water flea - Chydorus sphaericus - Juvenile (Fledgling, Hatchling, Weanling) - <48 hours	48 hours
	-	Acute EC50 18.8 ug/L Fresh water	Crustaceans - Water flea - Simocephalus vetulus - Juvenile (Fledgling, Hatchling, Weanling) - <48 hours	48 hours
	-	Acute EC50 18.4 ug/L Fresh water	Crustaceans - Water flea - Simocephalus	48 hours

12. Ecological information

		vetulus - Juvenile (Fledgling, Hatchling, Weanling) - <48 hours	
-	Acute EC50 16.1 ug/L Fresh water	Crustaceans - Water flea - Simocephalus vetulus - Juvenile (Fledgling, Hatchling, Weanling) - <48 hours	48 hours
-	Acute EC50 14.1 ug/L Fresh water	Crustaceans - Water flea - Chydorus sphaericus - Juvenile (Fledgling, Hatchling, Weanling) - <48 hours	48 hours
-	Acute EC50 9.89 ug/L Fresh water	Daphnia - Water flea - Daphnia longispina - Juvenile (Fledgling, Hatchling, Weanling) - <48 hours	48 hours
-	Acute EC50 9.2 ug/L Fresh water	Crustaceans - Water flea - Bosmina longirostris - Juvenile (Fledgling, Hatchling, Weanling) - <48 hours	48 hours
-	Acute EC50 9 ug/L Fresh water	Daphnia - Water flea - Ceriodaphnia dubia - Neonate - <24 hours	48 hours
-	Acute EC50 6.5 ug/L Fresh water	Daphnia - Water flea - Ceriodaphnia dubia - Neonate - <24 hours - 2.5 mm	48 hours
-	Acute EC50 6 to 8 ug/L Fresh water	Daphnia - Water flea - Ceriodaphnia dubia - Neonate - <24 hours - 2.5 mm	48 hours
-	Acute EC50 4 ug/L Fresh water	Daphnia - Water flea - Ceriodaphnia dubia - Neonate - <24 hours - 2.5 mm	48 hours
-	Acute EC50 2.8 ug/L Fresh water	Daphnia - Water flea -	48 hours

12. Ecological information

		Ceriodaphnia dubia - Neonate - <24 hours - 2.5 mm	
-	Acute EC50 2.2 ug/L Fresh water	Daphnia - Water flea - Ceriodaphnia dubia - Neonate - <24 hours - 2.5 mm	48 hours
-	Acute EC50 2 to 4 ug/L Fresh water	Daphnia - Water flea - Ceriodaphnia dubia - Neonate - <24 hours - 2.5 mm	48 hours
-	Acute EC50 1.6 ug/L Fresh water	Daphnia - Water flea - Ceriodaphnia dubia - Neonate - <24 hours - 0.25 mm	48 hours
-	Acute IC50 0.03 mg/L Marine water	Crustaceans - Amphipod - Ampelisca abdita	48 hours
-	Acute LC50 57 to 64 ug/L Fresh water	Crustaceans - Water flea - Simocephalus vetulus - <24 hours	48 hours
-	Acute LC50 30 ug/L Fresh water	Fish - Chinook salmon - Oncorhynchus tshawytscha - 3 months - 1.35 g	96 hours
-	Acute LC50 27.8 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling) - <1 months	96 hours
-	Acute LC50 24 ug/L Fresh water	Fish - Striped bass - Morone saxatilis - LARVAE - 16 days	96 hours
-	Acute LC50 20 ug/L Fresh water	Fish - Chinook salmon - Oncorhynchus tshawytscha - 3 months - 1.35 g	96 hours
-	Acute LC50 >20 ug/L	Fish - Chinook salmon - Oncorhynchus tshawytscha - 1.35 g	96 hours
-	Acute LC50 10.3 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - Juvenile	96 hours

12. Ecological information

			(Fledgling, Hatchling, Weanling) - <1 months	
	-	Acute LC50 >10 ug/L	Fish - Chinook salmon - Oncorhynchus tshawytscha - 1.35 g	96 hours
	-	Acute LC50 9.4 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling) - <1 months	96 hours
	-	Chronic NOEC 11.7 ug/L Fresh water	Fish - Chinook salmon - Oncorhynchus tshawytscha	96 hours

Biodegradability

Other adverse effects : No known significant effects or critical hazards.

AOX : The product does not contain organically bound halogens which could lead to an AOX value in waste water.

13. Disposal considerations

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

European waste catalogue (EWC) : 10 08 11 dross and skimmings other than those mentioned in 10 08 10

Hazardous waste : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.

14. Transport information

International transport regulations

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
ADR/RID Class	Not regulated.	-	-	-		-
IMDG Class	Not regulated.	-	-	-		-
IATA Class	Not regulated.	-	-	-		-

PG* : Packing group

15. Regulatory information

EU regulations

Classification and labeling have been determined according to EU Directives 67/548/EEC and 1999/45/EC (including amendments) and take into account the intended product use.

Risk phrases : This product is not classified according to EU legislation.

Product use : Industrial applications.

Other EU regulations

Additional warning phrases : Safety data sheet available for professional user on request.

Germany

Hazard class for water : nwg Appendix No. 4

Technical instruction on air quality control : TA-Luft Number 5.2.1: 99%
TA-Luft Class III - Number 5.2.2: 1%

Italy

Emission control directive : Not classified.

16. Other information

Full text of R-phrases referred to in sections 2 and 3 - Europe : None assigned.

Full text of classifications referred to in sections 2 and 3 - Europe : None assigned.

History

Date of printing : **20/07/2011.**

Date of issue : **04/07/2011.**

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Prepared by : Simon Hosken
Environmental, Health and Safety Manager

Indicates information that has changed from previously issued version.

References

The Health and Safety At Work Act 1974, section 6.
Control of Substances Hazardous to Health (CoSHH) Regulations 2002 and its amendments.

Preparation contains soley TSCA and REACh 1907/2006 listed substances.

This safety data sheet has been prepared in accordance with the requirements of the Chemicals (Hazard Information and Packaging for Supply) Regulations 2002 which implement EC Directives 1999/45/EC and 2001/58/EC and their amendments.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.